

CLAIMS

1. A carrier composition for a biologically active compound comprising at least one single chain amphipathic lipid and/or at least one double chain amphipathic lipid and a polymeric material associated with and hardening said lipid or lipids.
2. The composition of claim 1, wherein at least the lipid components of said composition are materials which have GRAS (generally regarded as safe) status.
3. The composition of claim 1 or 2, comprising a monoacyl membrane lipid.
4. The composition of any preceding claim, comprising a diacyl membrane lipid.
5. The composition of claim 1 or 2, comprising an enzyme digested lecithin.
6. The composition of claim 5, comprising 60-80 mol % of monoacyl lipid.
7. The composition of any preceding claim, wherein the polymer comprises a natural gum or a derivative thereof.
8. The composition of any preceding claim, wherein the polymer comprises a synthetic polymer.
9. The composition of any preceding claim, wherein the polymer has cationic or anionic groups.
- 30 10. The composition of claim 9, wherein the polymer has carboxyl or sulfate ester groups.

11. The composition of any preceding claim, wherein the polymer is selected from a salt of carboxymethylcellulose, alginic acid or a salt thereof, a starch modified with anionic groups, agar, carrageenan, gum arabic, gum tragacanth, gum xanthan, pectin, carboxypolyethylene, a methyl vinyl ether/maleic acid copolymer, an ammonio methacrylate copolymer, chitosan, a methacrylic acid copolymer, a hydrolysed gelatin.
12. The composition of any preceding claim, wherein there is present at least 10 wt % of the polymer based on the weight of said base composition.
13. The composition of any preceding claim, further comprising a sugar.
14. The composition of any preceding claim, further comprising a polyol, sucrose ester or polyglyceryl ester of a higher fatty acid or another polyol ester of a higher fatty acid.
15. The composition of any preceding claim, further comprising a biologically active compound.
16. The composition of claim 15, wherein the ratio by weight of the lipid to the active compound is from 40:1 to 1:40.
17. The composition of claim 15 or 16, wherein the active compound is present in molecular dispersion in the lipid.
18. The composition of claim 15 or 16, wherein the active compound is present as discrete particles in the composition.
19. The composition of claim 18, wherein the size of said particles is not more than 1 μm .

20. The composition of any preceding claim, wherein the biologically active compound is cyclosporin A, Taxol, tacrolimus or a rampamycin.
21. The composition of any of claims 1-19, wherein the biologically active compound is insulin, calcitonin or heparin.
22. The composition of any preceding claim, wherein the biologically active compound is ubiquinone, a tocopherol, a carotenoid or a bioflavenoid.
- 10 23. The composition of any preceding claim, which is of powder of size 50-2000 µm.
24. The composition of any preceding claim, which is of powder of size 50-1000 µm.
- 15 25. The composition of any of claims 1-22, which is of granules of size 1-5 mm.
- 20 26. A method for making the composition of any preceding claim, which comprises dissolving or dispersing the ingredients in a solvent and removing said solvent.
27. The method of claim 26, wherein the lipid and biologically active compound (if present) are dissolved in ethanol, the polymer is dissolved in water, the aqueous and ethanolic solutions are mixed, and the mixture is dried.
28. The method of claim 26 or 27, comprising the further step of comminuting the composition after the solvent has been removed.
- 30 29. The method of claim 28, comprising the further step of forming said comminuted composition into a tablet.

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30. The method of claim 28, comprising the further step of filling said comminuted composition into a capsule.

31. A lipid composition for administration to a living organism comprising a biologically active compound and monoacyl and diacyl membrane lipid in association with a polymer, said composition being a solid that when stored in a glass container remains free flowing after storage for 3 months at 40°C and 75% relative humidity.

10 32. The composition of claim 31, wherein the lipids are selected from those which have GRAS status, and wherein the polymer is selected from natural polysaccharide polymers, starches and their derivatives, cellulose and its derivatives and gelatines.

15 Sub B7 33. The composition of claim 1 or 31, wherein the lipid comprises natural lipid.

34. The composition of claim 1 or 31, wherein the lipid is an enzyme modified natural lipid.

20 Sub B7 35. The composition of claim 33 or 34, wherein the lipid is derived from egg or soya.

25 Sub B9 36. The composition of claim 1 or 31, wherein the lipid comprises partly synthetic lipid.

37. The composition of claim 1 or 31, wherein the lipid comprises synthetic lipid.

30 Sub B9 38. The composition of any of claims 33-37, wherein the polymer is selected from natural polysaccharide polymers, starches and their derivatives, cellulose and its derivatives and gelatin.

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